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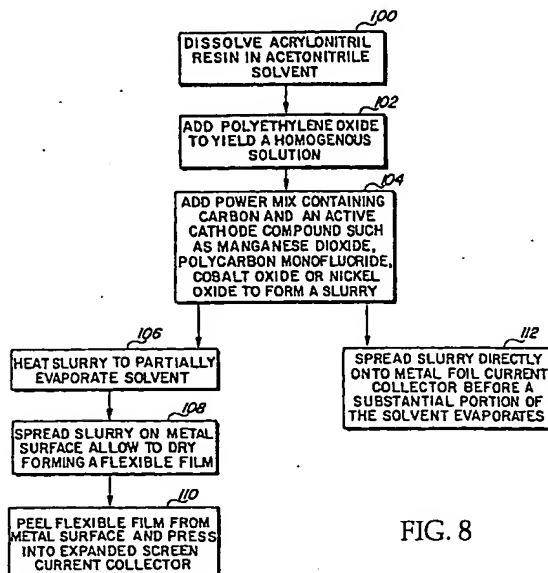
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(54) **Electrochemical cell**

(57) The electrochemical cell includes an electrode structure (200) having a metal anode (208) coated with lithium mounted to one side of a polymeric separator (206). The electrode structure (200) also includes a cathode structure (204) having a active cathode material, such as polycarbon monofluoride, coated on an expanded screen current collector (202). The cathode structure (204) is mounted on an opposing side of the

polymeric separator (206). Side edges of the expanded screen current collector (202) are coined inwardly to prevent sharp tines formed alongside edges from damaging adjacent components within the electrochemical cell. The electrode structure (200) is mounted within a cell housing which is flooded with a liquid non-aqueous electrolyte. Appropriate electrical contracts are provided to the anode (208) and cathode (204).



**FIG. 8**

EP 0 746 048 A3



European Patent  
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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	DATABASE WPI Section Ch, Week 8933 Derwent Publications Ltd., London, GB; Class A85, AN 89-236428 XP002015915 & JP-A-01 169 873 (UBE INDUSTRIES KK) , 5 July 1989 * abstract *	1,3,4,6	H01M4/62 H01M4/02 H01M6/16 H01M4/66
A	---	20,24, 25,27,28	
A	DD-A-231 178 (TU DRESDEN)  * abstract * * page 5 *	1,2,4,6, 8,9	
A	EP-A-0 166 322 (UNION CARBIDE CORP) 2 January 1986 * page 4, line 1 - line 11; claims 3,4; example 1 *	4-6,10	
A	---		
A	PATENT ABSTRACTS OF JAPAN vol. 007, no. 004 (E-151), 8 January 1983 & JP-A-57 163965 (SANYO DENKI KK), 8 October 1982, * abstract *	12,13	TECHNICAL FIELDS SEARCHED (Int.Cl.6) H01M
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 15 October 1996	Examiner Andrews, M
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application I : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p>			

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